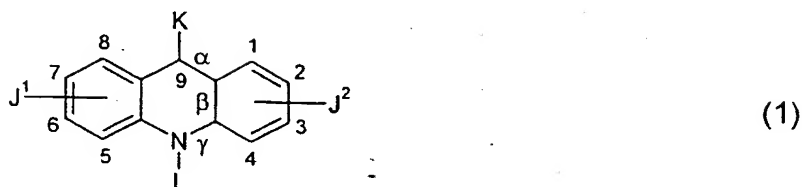


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CLAIMS

1. A compound of the formula:



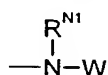
wherein either:

- 5 (a) K is =O, L is -H, α is a single bond, β is a double bond, γ is a single bond ("acridone"); or:
- (b) K is a 9-substituent, L is absent, α is a double bond, β is a single bond, γ is a double bond ("acridine");

and wherein:

- 10 J¹ is a 2- or 3-substituent; and,
J² is a 6- or 7-substituent;

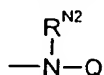
and wherein J¹ and J² are each independently a group of the formula:



wherein:

- 15 R^{N1} is independently a nitrogen substituent and is hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclcyl, or C_{5-20} aryl, and is optionally substituted; and, W is independently C_{1-7} alkyl, C_{3-20} heterocyclcyl, or C_{5-20} aryl, and is optionally substituted;

and wherein, when K is a 9-substituent, K is a group of the formula:

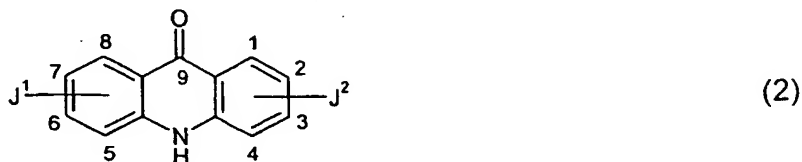


- 20 $\text{—}\overset{\text{I}}{\text{N}}\text{—Q}$
- wherein:
- $\text{R}^{\text{N}2}$ is independently a nitrogen substituent and is hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted; and,
- 25 Q is independently C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted;

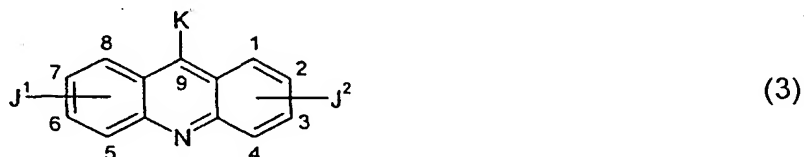
and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.

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2. An acridone compound according to claim 1, wherein K is =O, L is -H, α is a single bond, β is a double bond; γ is a single bond ("acridone"):



- 5 3. An acridine compound according to claim 1, wherein K is a 9-substituent, L is absent, α is a double bond, β is a single bond, γ is a double bond ("acridine"):



* * *

10

4. A compound according to any one of claims 1 to 3, wherein J¹ is a 2-substituent and J² is a 7-substituent.

- 15 5. A compound according to any one of claims 1 to 3, wherein J¹ is a 3-substituent and J² is a 6-substituent.

6. A compound according to any one of claims 1 to 3, wherein J¹ is a 2-substituent and J² is a 6-substituent; or:
J¹ is a 3-substituent and J² is a 7-substituent.

20

* * *

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7. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl, C₃₋₂₀heterocyclyl, or C₅₋₂₀aryl, and is optionally substituted with one or more groups selected from: amino; ether; amido; acylamino; carboxy; ester; acyloxy; and sulfonamido.

5

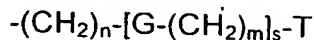
8. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl and is optionally substituted with one or more groups selected from: amino and ether.

10

9. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl substituted with one or more group selected from: amino; ether; polyamino; polyether; and polyether-polyamino.

15

10. A compound according to any one of claims 1 to 6, wherein W is independently a group of the formula:



wherein:

n is independently an integer from 1 to 8;

each m is independently an integer from 1 to 8;

20

s is independently an integer from 0 to 3;

each G is independently -O- or -NR^N-;

each R^N is independently a nitrogen substituent;

T is independently a terminal amino group, -NR¹R² or a terminal ether group, -OR⁵.

25

11. A compound according to any one of claims 1 to 6, wherein W is independently C₁₋₇alkyl substituted with one or more group selected from: amino; ether; amino-C₁₋₇alkyl-amino; amino-C₁₋₇alkoxy; and ether-C₁₋₇alkoxy.

30

12. A compound according to any one of claims 1 to 6, wherein W is independently selected from:
amino-C₁₋₇alkyl;

- 114 -

ether-C₁₋₇alkyl;
 amino-C₁₋₇alkyl-amino-C₁₋₇alkyl;
 amino-C₁₋₇alkoxy-C₁₋₇alkyl; and,
 ether-C₁₋₇alkoxy-C₁₋₇alkyl.

5

13. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein -NR¹R² is a terminal amino group, -OR⁵ is a terminal ether group, R^N is a nitrogen substituent, and each of n and m is independently an integer from 1 to 8:

10

-(CH₂)_n-NR¹R²;
 -(CH₂)_n-OR⁵;
 -(CH₂)_n-NR^N-(CH₂)_m-NR¹R²;
 -(CH₂)_n-NR^N-(CH₂)_m-OR⁵;
 -(CH₂)_n-O-(CH₂)_m-NR¹R²; and,
 -(CH₂)_n-O-(CH₂)_m-OR⁵.

15

14. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein -NR¹R² is a terminal amino group, -OR⁵ is a terminal ether group, R^N is a nitrogen substituent, and m is independently an integer from 1 to 8;

20

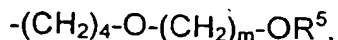
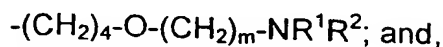
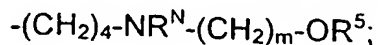
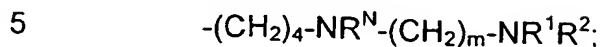
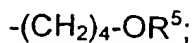
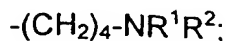
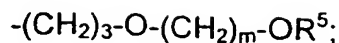
-(CH₂)₂-NR¹R²;
 -(CH₂)₂-OR⁵;
 -(CH₂)₂-NR^N-(CH₂)_m-NR¹R²;
 -(CH₂)₂-NR^N-(CH₂)_m-OR⁵;
 -(CH₂)₂-O-(CH₂)_m-NR¹R²; and,
 -(CH₂)₂-O-(CH₂)_m-OR⁵;

25

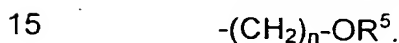
-(CH₂)₃-NR¹R²;
 -(CH₂)₃-OR⁵;
 -(CH₂)₃-NR^N-(CH₂)_m-NR¹R²;
 -(CH₂)₃-NR^N-(CH₂)_m-OR⁵;
 -(CH₂)₃-O-(CH₂)_m-NR¹R²; and,

30

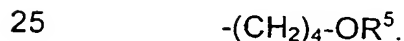
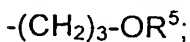
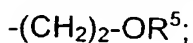
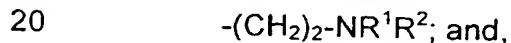
- 115 -



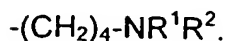
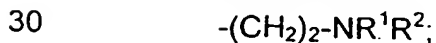
- 10 15. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein $-\text{NR}^1\text{R}^2$ is a terminal amino group, $-\text{OR}^5$ is a terminal ether group, and n is independently an integer from 1 to 8:



16. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein $-\text{NR}^1\text{R}^2$ is a terminal amino group, and $-\text{OR}^5$ is a terminal ether group:



17. A compound according to any one of claims 1 to 6, wherein W is independently selected from the following, wherein $-\text{NR}^1\text{R}^2$ is a terminal amino group:

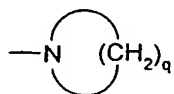


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- 5 18. A compound according to any one of claims 10 and 13-17, wherein each of R^1 and R^2 of the terminal amino group, $-NR^1R^2$, is independently an amino substituent, and is hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl, and is optionally substituted; or, R^1 and R^2 , taken together with the nitrogen atom to which they are attached, form a heterocyclic ring having from 3 to 8 ring atoms, and is optionally substituted.
- 10 19. A compound according to claim 18, wherein said terminal amino group is a secondary amino group, and one of R^1 and R^2 is -H.
- 15 20. A compound according to claim 18, wherein said terminal amino group is a tertiary amino group, and neither R^1 nor R^2 is -H.
21. A compound according to claim 18, wherein each of R^1 and R^2 is independently -Me, -Et, -nPr, -iPr, -nBu, or -tBu.
- 20 22. A compound according to claim 18, wherein $-NR^1R^2$ is independently $-N(Me)_2$, $-N(Et)_2$, $-N(nPr)_2$, $-N(iPr)_2$, $-N(nBu)_2$, or $-N(tBu)_2$.
23. A compound according to claim 18, wherein $-NR^1R^2$ is independently -NHMe, -NH*Et*, -NH(nPr), -NH(iPr), -NH(nBu), or -NH(tBu).
- 25 24. A compound according to claim 18, wherein R^1 and R^2 , taken together with the nitrogen atom to which they are attached, form a heterocyclic ring having from 3 to 8 ring atoms, which heterocyclic ring is saturated, partially unsaturated, or fully unsaturated, and is optionally substituted.

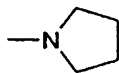
- 117 -

25. A compound according to claim 18, wherein R^1 and R^2 , taken together with the nitrogen atom to which they are attached form a cyclic amino group of the following formula, wherein q is independently an integer from 2 to 7, and wherein said group is optionally substituted:

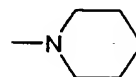


26. A compound according to claim 18, wherein the terminal amino group, $\text{—NR}^1\text{R}^2$, is independently one of the following cyclic amino groups, and is optionally substituted:

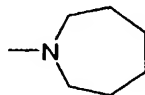
azolidino
(pyrrolidino)



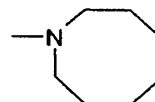
perhydroazino
(piperidino)



perhydroazepino

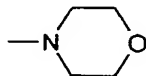


perhydroazocino

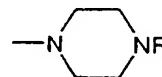


27. A compound according to claim 18, wherein the terminal amino group, $\text{—NR}^1\text{R}^2$, is one of the following groups, and is optionally substituted:

morpholino

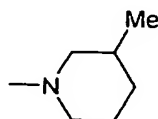
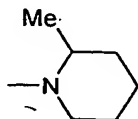


piperazino

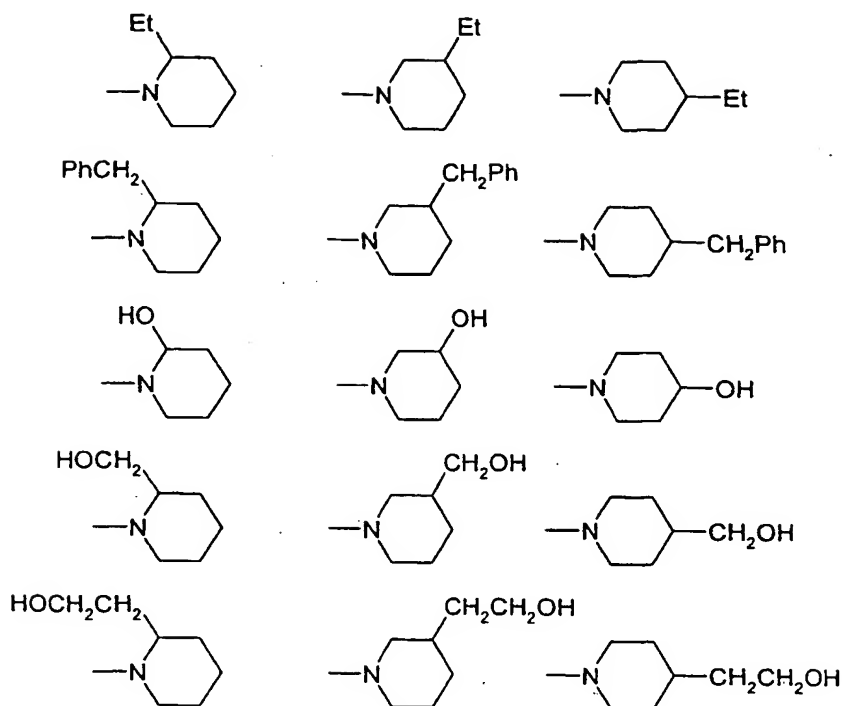


wherein R is an amino substituent, for example, hydrogen, C_{1-7} alkyl, C_{3-20} heterocyclyl, or C_{5-20} aryl.

28. A compound according to claim 18, wherein the terminal amino group, $\text{—NR}^1\text{R}^2$, is one of the following substituted cyclic amino groups:



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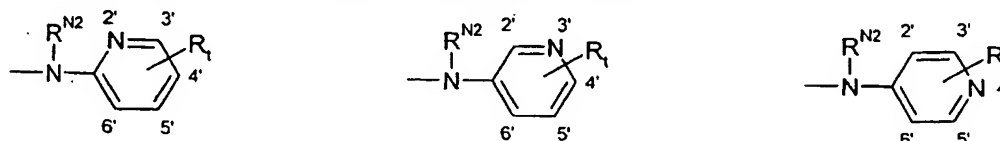


* * *

29. A compound according to any one of claims 10 and 13-17, wherein R⁵ is independently an ether substituent, and is selected from: hydrogen, C₁₋₇alkyl, C₃₋₂₀heterocyclyl, and C₅₋₂₀aryl; and is optionally substituted.
30. A compound according to claim 29, wherein R⁵ is independently -H.
31. A compound according to claim 29, wherein R⁵ is independently C₁₋₇alkyl, C₃₋₂₀heterocyclyl, and C₅₋₂₀aryl; and is optionally substituted.
32. A compound according to claim 29, wherein R⁵ is independently -Me, -Et, -nPr, -iPr, -nBu, -tBu, optionally substituted -Ph, or optionally substituted -Bn.

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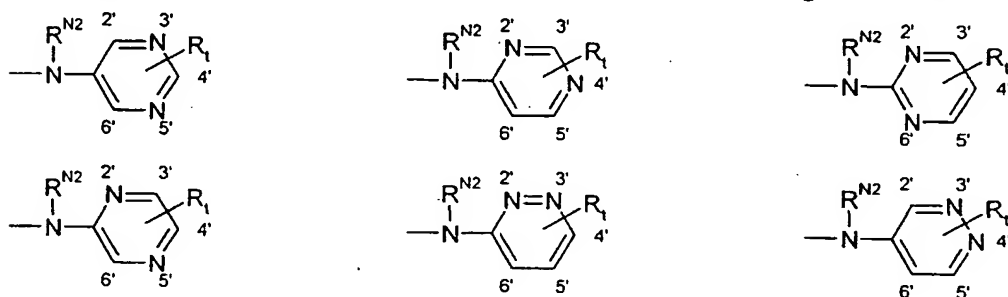
33. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein t is independently an integer from 0 to 4, and each R is independently a substituent.

5

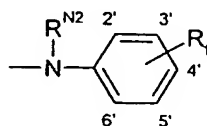
34. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group having one of the following formulae:



wherein t is independently an integer from 0 to 3, and each R is independently a substituent.

10

35. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein t is independently an integer from 0 to 5, and each R is independently a substituent.

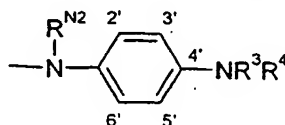
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36. A compound according to any one of claims 33 to 35, wherein each R is independently selected from halo, amino, hydroxy, ether, thio, thioether, C₁₋₇alkyl, C₁₋₇haloalkyl, acyl, amido, carboxy, cyano, and aminoalkyl.

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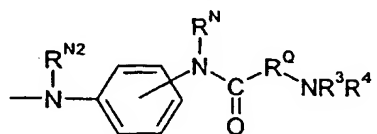
37. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein $-NR^3R^4$ is as defined for $-NR^1R^2$.

5

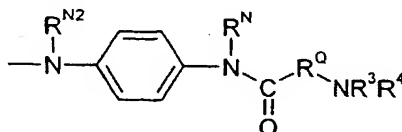
38. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein R^N is a nitrogen substituent as defined for R^{N2} , R^Q is independently a C_{1-10} alkylene group, and $-NR^3R^4$ is as defined for $-NR^1R^2$.

10

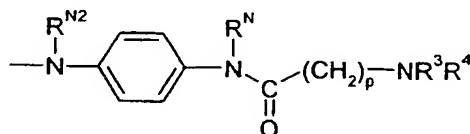
39. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein R^N is a nitrogen substituent as defined for R^{N2} , R^Q is a C_{1-10} alkylene group, and $-NR^3R^4$ is as defined for $-NR^1R^2$.

15

40. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and has the following formula:

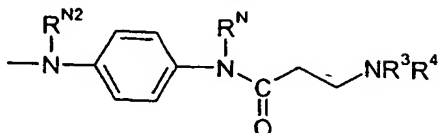


wherein R^N is a nitrogen substituent, p is independently an integer from 1 to 8, and $-NR^3R^4$ is as defined for $-NR^1R^2$.

20

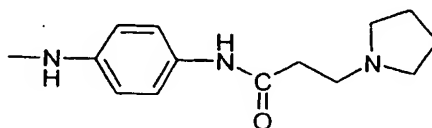
- 121 -

41. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula,:

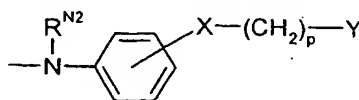


wherein R^N is a nitrogen substituent as defined for R^{N2} , and $-NR^3R^4$ is as defined for $-NR^1R^2$.

42. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



43. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein:

X is $-N(R^N)-$, $-CH_2-$, $-O-$, or $-S-$;

R^N is a nitrogen substituent as defined for R^{N2} ;

Y is $-OH$, $-OR^Y$, or $-NR^3R^4$;

$-OR^Y$ is as defined for $-OR^5$;

$-NR^3R^4$ is as defined for $-NR^1R^2$; and,

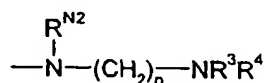
p is independently an integer from 1 to 8.

* * *

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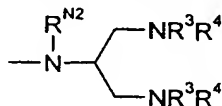
44. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and Q is independently a C₁₋₇alkyl group optionally substituted with one or more amino groups, one or more hydroxy groups, one more ether groups, one or more carboxy groups, one or more C₃₋₂₀heterocyclyl groups, or one or more C₅₋₂₀aryl groups.

45. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein p is independently an integer from 1 to 8, and the group -NR³R⁴ is as defined for -NR¹R².

46. A compound according to any one of claims 3 to 33, wherein K is a 9-substituent, and is a group of the formula:

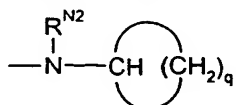


wherein each group -NR³R⁴ is as defined for -NR¹R².

* * *

47. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and Q is, or comprises, an alicyclic saturated C₁₋₇alkyl group, and is optionally substituted.

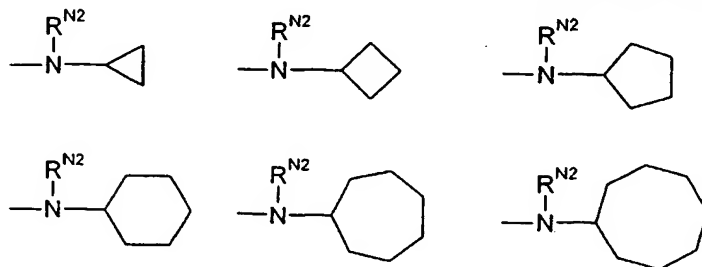
48. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



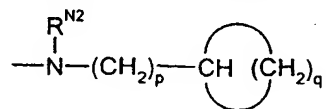
wherein q is independently an integer from 2 to 7, and wherein the cyclic group is optionally substituted.

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49. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of one of the following formulae:

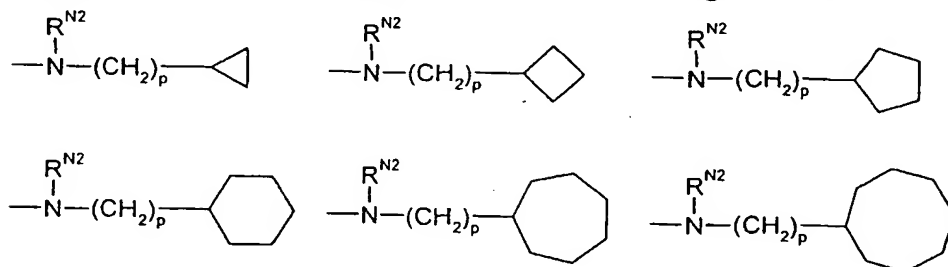


50. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



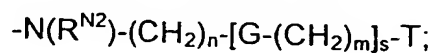
wherein p is independently an integer from 1 to 8 and q is independently an integer from 2 to 7, and wherein the cyclic group is optionally substituted.

51. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of one of the following formulae:



wherein p is independently an integer from 1 to 8, and wherein the cyclic group is optionally substituted.

52. A compound according to any one of claims 3 to 32, wherein K is a 9-substituent, and is a group of the formula:



wherein:

n is independently an integer from 1 to 8;

each m is independently an integer from 1 to 8;

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s is independently an integer from 0 to 3;
each G is independently -O- or -NR^N-;
each R^N is independently a nitrogen substituent as defined for R^{N2};
T is independently a terminal amino group, -NR¹R² or a terminal ether
group, -OR⁵.

* * *

53. A compound according to any one of claims 1 to 52, wherein each R^{N1} is
independently -H, -Me, -Et, -nPr, -iPr, -tBu, -Bn, or -Ph.

54. A compound according to any one of claims 1 to 52, wherein each R^{N1} is
independently -H.

* * *

55. A compound according to any one of claims 1 to 54, wherein each R^{N2} is
independently -H, -Me, -Et, -nPr, -iPr, -tBu, -Bn, or -Ph.

56. A compound according to any one of claims 1 to 54, wherein each R^{N2} is
independently -H.

* * *

57. A compound according to any one of claims 1 to 56, wherein each R^N is
independently -H, -Me, -Et, -nPr, -iPr, -tBu, -Bn, or -Ph.

58. A compound according to any one of claims 1 to 56, wherein each R^N is
independently -H.

* * *

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59. Compound BSU-SB-36/102 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 5 60. Compound BSU-SB-36/100 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
61. Compound BSU-SB-36/104 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 10 62. Compound BSU-SB-36/108 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
63. Compound BSU-SB-36/106 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 15 64. Compound BSU-SB-36/228 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
65. Compound BSU-SB-36/234 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 20 66. Compound BSU-SB-36/236 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 25 67. Compound BSU-SB-36a/030 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
68. Compound BSU-SB-36a/028 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 30 69. Compound BSU-SB-36a/038 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.

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70. Compound BSU-SB-36/112 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
- 5 71. Compound BSU-SB-36/114 and pharmaceutically acceptable salts, esters, amides, solvates, hydrates, and protected forms thereof.
72. A composition comprising a compound according to any one of claims 1 to 101 and a pharmaceutically acceptable carrier or diluent.
- 10 73. A compound according to any one of claims 1 to 71 for use in a method of treatment of the human or animal body by therapy.
74. Use of a compound according to any one of claims 1 to 71 for the
15 manufacture of a medicament for use in the treatment of a proliferative condition.
75. A method of inhibiting telomerase *in vitro* or *in vivo*, comprising contacting a cell with an effective amount of compound according to any one of claims 1
20 to 71.
76. A method of regulating cell proliferation *in vitro* or *in vivo*, comprising contacting a cell with an effective amount of compound according to any one of claims 1 to 71.
- 25 77. A method for the treatment of a proliferative condition comprising administering to a subject suffering from said proliferative condition a therapeutically-effective amount of a compound according to any one of claims 1 to 71.
- 30